

Claims 6, 7, 10-42 are rejected under 35 U.S.C. § 112, first and second paragraphs, as the claimed invention is not described in such full, clear, concise and exact terms as to enable any person skilled in the art to make and use the same, and/or for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Recitation "a commutator" (claims 6,15) not clear, see claim 7; "the motor", "the same time" (claims 7, 15) "said first and second support arms" (claims 10-14), "said third and four to support arms" (claims 15, 16, 37, 39), "said first support", "said second support" (claims 17, 33) first support "(claims 24, 28), "said first and second supports" (claim 38), "said different resonance frequencies" (claim 42) no antecedent basis; "plurality of circumferential segments....the support arms being connected electrically in parallel" (claim 7), "an aperture" (claim 13), "third and fourth....support arms" (claims 15, 16, 37, 39), "third and fourth brush bodies "(claims 15, 34, 37), "third and fourth brushes" (claim 38) insufficiently supported in the specification. The above mentioned deficiencies are only the examples of an inadequate claim language.

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains,

or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as the specification, as originally filed, does not provide support for the invention as is now claimed. Recitations "brushes being mounted....at substantially common position around the circumference "(claim 19), "brushes are mounted....a common one of said segments....simultaneously" (claims 20, 23), "third resonant frequency", "fourth resonant frequency," "third and fourth resonant frequencies being different" (claim 22), "third and fourth brushes....contacting a common one of the segments....simultaneously (claim 23), "the supports having substantially equal lengths" (claim 33), "reducing interface resistance....despite oscillations of said arms and brush bodies" (claim 37), "reducing interface resistance....of said supports and brushes" (claims 38-40) are not supported in the original specification and are considered as new matter.

Claims 19-23, 37-40 are rejected under 35 U.S.C. § 112, first paragraph, for the reasons set forth in the objection to the specification.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section

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102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 5, 6, 7, 9-14, 17-20, 24-33, 40-42 are rejected under 35 U.S.C. § 103 as being unpatentable over Baines in view of Muller, or Muller alone. ~~Muller, or Muller alone.~~ Baines (Fig. 1) generally teaches the recited subject matter, except for support arms and brushes having different resonance frequency. Muller (Fig. 3) teaches wiper arms which are analogous to brushes and arms. The arms of Muller are of different lengths or sizes and the resonance frequencies of the arms are ~~of~~ different.

It would have been obvious to one skilled in the art at the time of the invention to modify the sizes of the brushes of Baines in view of teaching in Muller so that the difference in length or size of the wiper arms, which is equivalent to brushes and arms, would produce different resonance frequencies because all references are in the same environment.

Further, note that Muller (col. 2, lines 33-40) teaches wiper arms which are analogous to the subject matter support and

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brush means, of different lengths or sizes so that the resonance frequencies will be different. It would have been obvious to a person of an ordinary skill in the art that the recited subject matter does not produce substantial unobvious or unexpected results over Muller.

Claims 15, 16, 21-23, 34-39 are rejected under 35 U.S.C. § 103 as being unpatentable over Baines in view of Muller, or Muller alone as applied to claims 5, 6, 7, 9-14, 17-20, 24-33, 40-42 above, and further in view of Watanabe and Hargreaves. Baines or Muller has been discussed above, Watanabe (Fig's 1, 2) teaches four conductive brushes. Hargreaves (Fig. 7) teaches four resident support means with the respective brushes. It would have been obvious to a person of an ordinary skill in the art of the time of the invention to use the teaching of Watanabe or Hargreaves with the teaching of Baines. In particular, one skilled in the art would have been capable to form all four brush support arms of Hargreaves in a manner taught by Muller ^{et al.} i.e. different resonance for each arm, because this would have been within the scope of knowledge of one skilled in the art.

Applicant's arguments filed October 19, 1992, November 05, 1992 and February 10, 1993 have been fully considered but they are not deemed to be persuasive. Applicant argues that if Muller had been combined with the primary references, such as Baines, the first and second brushes would have the same frequency. It

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appears, however, that Muller teaches the resonance frequencies of the individual arms will be different (col. 2, lines 36-40). Further it is argued that the contact points of the wiper arms taught by Muller are not diametrically opposite to each other. It should be noted that the contact points of Baines (Fig. 1) are diametrically opposite to each other. Regarding third and fourth brushes recited, for example in claims 34, 35 applicants' attention is solicited to Watanable and Hargreaves.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Note Edmunson and Martin.

Applicant's amendment necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE

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PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

R. Skudy

Skudy/dc
May 04, 1993